



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/499,060	02/04/2000	Christophe Garnier	98GR22045417	9699

27975 7590 12/23/2002

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A.  
1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE  
P.O. BOX 3791  
ORLANDO, FL 32802-3791

EXAMINER

CUNNINGHAM, TERRY D

ART UNIT PAPER NUMBER

2816

DATE MAILED: 12/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/499,060

Applicant(s)

GARNIER ET AL.

Examiner

Terry D. Cunningham

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-37 and 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-37 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9-37 and 40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to adequately disclose how to make and use the invention as now claimed with respect to the new language concerning "said first and second resistances having a same type technology". Applicant has pointed to support for this language having antecedent in the specification, however, the specification fails to disclose specifically what is meant by this disclosure. Stating that the elements have the "same type technology" can mean many different means. This can mean that both are electronic, that both are mechanical, that both are integrated, etc. In the remarks, Applicant appears to be stating that this means that both resistances are of integrated technology. However, with no specific disclosure provided in the specification as to what is meant by this broad and vague terminology, it is not seen that the specification enables how to make and use the invention as now claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-37 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For similar reasons as discussed above, the metes and bounds of the phrase “same type technology” cannot be clearly understood based on the broad and vague disclosure therefor in the specification.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-37 and 40 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's prior art Fig. 1 in view of Tanigawa (USPN 4,814,724) and newly cited reference to Lauffenburger (USPN 5,254,957).

Applicant's prior art Fig. 1 discloses a ramp generator having a broad current source  $I_{g1}$  with no expressed teachings of the structure thereof. The reference to Tanigawa discloses in Fig. 4 a specific current sink comprising a “current mirror” which has the advantage of gain control. It is notoriously well known that to modify a current sink circuit, as seen in Fig. 4 of Tanigawa, to a current source circuit, such requires changing the conductivity types of the transistors and the polarities of the power supply. Therefore, it would have been obvious for one skilled in the art to modify the circuit of Fig. 4 of Tanigawa to be a current source circuit as is notoriously well

Art Unit: 2816

known in the art. Further, it would have been obvious for one skilled in the art to use the specific current source of Tanigawa, modified as discussed above, for the broad current source Ig1 of Applicant's prior art Fig. 1 for the expected advantage of obtaining a constant current with gain control.

Additionally, the above combination fails to disclose that the circuit is provided on a single "semiconductor substrate". However, it is notoriously well known, as taught in Col. 6, lines 10-15, of newly cited reference to Lauffenburger, integrating circuitry onto a single substrate has the advantage of providing temperature tracking for the elements of the circuit. Therefore, it would have been obvious for one skilled in the art to integrate the circuit onto a single integrated substrate for the expected advantages of providing temperature tracking.

With respect to claims 11, 12, 17, 18, 25, 26, 32, 33 and 38, it would have been obvious for one skilled in the art to use MOS transistors in place of Q1 and Q2 of Tanigawa for similar reasons as discussed above with Caron.

Examiner has fully considered Applicant's remarks for the above rejection and has not found them to be persuasive. Applicant argues concerning the disclosure in Tanagawa that the "output current" is "A times larger than the input current". This argument is not at all understood because the operation is the same as the operation of the present invention and has nothing directly to do with the discussed claim language. The claims state that the "charging current" being "proportional to a square of the ratio of the second resistance and the first resistance". Nowhere does the cited portion of Tanagawa discuss anything regarding the resistances, required in the claims. Examiner contends that the operation disclosed on page 6 that " $I_{g2} = K_2 \cdot (V_{g2}/R_{g2})$ " is inherent and necessarily true in all current sources. Since this

Art Unit: 2816

operation is inherently true in current source 9 of Fig. 4 of Tanagawa, such will inherently have the claimed operation concerning the “square of the ratio of” resistances.

Applicant further argues concerning the new language of the resistance being the “same type technology”. Applicant argues that resistor R would not be integrated. However, the reference to Tanagawa expressly states that none of the circuit of Fig. 4 is integrated. Thus, all the elements of Fig. 4 would be discrete. Since these elements are all discrete, then it would be reasonable to state that they are of the “same technology”.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 703-308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

Art Unit: 2816

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for Technology Center 2800 are 703-872-9318 for Before Final communications and 703-872-9319 for After Final communications. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.

TC  
December 18, 2002

**Terry D. Cunningham**  
**Primary Examiner**  
**Art Unit 2816**